What Is Claimed Is:

1.   A method of providing an answer, in a poorly formalized domain, to a natural language query, the method comprising the steps of:

(a)   building a translation formula based on the query;

(b)   matching the translation formula with a semantic header derived from the domain; and

(c)   extracting the answer from the domain.

2.   The method of claim 1, further comprising the step of:

(d)   creating the semantic header for the answer, performed before step (b).

3.   The method of claim 2, wherein said step (d) comprises the steps of:

(i)   identifying expected queries with respect to the domain;

(ii)   creating a graph of the domain structure;

(iii)   determining subgraphs of the classification graph in accordance with the expected queries; and

(iv)   creating a semantic header for each question.

4.   The method of claim 1, further comprising the step of:

(d)   clarifying the query, performed after step (b).

5.   The method of claim 4 wherein said step (d) comprises the steps of:

(i)   determining entities, from a predetermined set of entities, that could instantiate an uninstantiated expression in the translation formula;

(ii)   presenting the determined entities to a user; and

(iii)   receiving an indication from the user of a chosen entity.

6.   The method of claim 1, further comprising the steps of:

(d)   displaying the answer.

7.   The method of claim 1, wherein step (a) comprises the steps of:

(i)   performing concept extraction from the domain, based on the translation formula; and

(ii)   controlling the generality of the translation formula.

8.   The method of claim 7, wherein step (a) further comprises the step of:

(iii)   normalizing a word of the translation formula, performed before step (i).

9.   The method of claim 7, wherein step (a) further comprises the step of:

(iii)   substituting a synonym for a word of the translation formula, performed before step (i).

10.   The method of claim 7, wherein step (a) further comprises the step of:

(iii)   substituting for a metapredicate in the translation formula, performed after step (i).

11.   The method of claim 7, wherein said step (ii) comprises the steps of:

(A)   testing for improper generality of the translation formula; and

(B)   altering the generality of the translation formula.

12.   The method of claim 11, wherein step (B) comprises the step of attenuating the translation formula.

13.   The method of claim 12, wherein said step (B) further comprises the step of performing antisymmetric linkage, performed before said attenuating

5   step.

14.   The method of claim 11, wherein said step (B) comprises the step of argument substitution.

15.   The method of claim 14, wherein said step (B) further comprises the step of argument extraction, performed before said argument substitution step.

10   16.   The method of claim 1, wherein said step (a) comprises the step of processing logical connectives in the translation formula.

17.   The method of claim 1, wherein said step (a) comprises the step of reordering the predicates of the translation formula according to procedural semantics.

15   18.   The method of claim 1, wherein said step (a) comprises the step of performing condition insertion.

19.   A method of extending a poorly formalized domain, comprising the steps of:

        (a)   receiving at least one of a query and an answer from an
20   expert;

        (b)   if the query is received, translating the query into at least one semantic header;

(c)   if the query and the answer are received, adding the answer and the corresponding at least one semantic headers to the domain, to form an extended domain; and

(d)   compiling the extended domain.

20.   A method of providing a query and answer tool adaptable by a client, comprising the steps of:

(a)   providing a compiled domain to a client;

(b)   enabling a extension of the domain without the assistance of a knowledge engineer.

21.   The method of claim 20, wherein said step (b) comprises the step of enabling the client to extend the domain without the assistance of a knowledge engineer.

22.   The method of claim 20, wherein said step (b) comprises the step of enabling an authorized user of the domain to extend the domain without the assistance of a knowledge engineer.

23.   A computer program product comprising a computer usable medium having computer readable program code means embodied in said medium for causing an application program to execute on a computer that provides an answer, in a poorly formalized domain, to a natural language query, said computer readable program code means comprising:

(a)   computer readable program code means for causing the computer to build a translation formula based on the query;

(b)   computer readable program code means for causing the computer to match the translation formula with a semantic header derived from the domain; and

(c)   computer readable program code means for causing the computer to extract the answer from the domain.

24.   The computer program product of claim 23, further comprising:

(d)   computer readable program code means for causing the computer to create the semantic header for the answer.

25.   The computer program product of claim 23, further comprising:

(d)   computer readable program code means for causing the computer to clarify the translation formula.

26.   The computer program product of claim 23, further comprising:

(d)   computer readable program code means for causing the computer to display the answer.

27.   The computer program product of claim 23, wherein said computer readable program code means (a) comprises:

(i)   computer readable program code means for causing the computer to perform concept extraction from the domain, based on the translation formula; and

(ii)   computer readable program code means for causing the computer to control the generality of the translation formula.

28.   A computer program product comprising a computer usable medium having computer readable program code means embodied in said medium for causing an application program to execute on a computer that extends a poorly formalized domain, said computer readable program code means comprising:

(a)   computer readable program code means for causing the computer to receive at least one of an answer and a query from an expert;

(b)   computer readable program code means for causing the computer to translate the answer into at least one semantic header, if an answer is received;

(c)   computer readable program code means for causing the computer to add the answer and the corresponding at least one semantic header to the domain, if a query and answer are received, to form an extended domain; and

(d)   computer readable program code means for causing the computer to compile the extended domain.